LESLIE'S PATENT FOR VENTILATION AND ECONOMY OF FUEL.

OFFICIAL REFEREES' AWARD.

Mr. Leslie having constructed a fire-place and chimney in his manufactory in accordance with his patent, the district-surveyor of St. George's, Hanover-square, filed an information against him as follows:—

"That the said John Leslie, in building the said chimney and fine, has done certain matters or things contrary to the provisions of the Act, namely, the breast of the said chimney, and the front of the fine in the said chimney, not being built at the least 4 inches in thickness, of sound bricks properly bonded, and the joints of the works filled in with good mortar or cement."

The award sets forth, that at the hearing Mr. Leslie "stated that his object was to try an experiment for the purpose of introducing a newly invented mode of ventilation by means of a vertical perforation in the fire flues, such flues being of less width than the minimum dimension permitted by the Metropolitan Buildings Act, that is to say, of less than 8½ inches in one direction."

And the decision was, "that the matter alleged by the district-surveyor is contrary to the Act, and further that the formation of the fine less than 8½ inches in any direction is contrary to the said Act, but inasmuch as the object of the work is to make an experiment, the official referees will make no direction thereon for a period of three months from the date hereof."

In connection with the above, we are called on to publish the following letter, addressed to the official referees under the Metropolitan Buildings Act:—

Offices for Mr. Leslie's patents,
59, Conduit-street, 24th July, 1846.

Gentlemen,—On receipt of your letter of the 22nd instant, yesterday, I caused the demand on me of 1*l.* 3*s.* 2*d.* to be paid to obtain your award; and having carefully perused the same, I formally protest against it; because there are most important errors of omission and commission in the document, whereby the real facts of the case are not to be found in it.

When this award is published it will appear on the face of it, to every reader, that I have surreptitiously committed an offence against the Metropolitan Buildings Act, which the vigilance of Mr. Foxhall, the district surveyor, had discovered: that he gave me notice of the irregularity on the 14th instant: that on the 16th he found I had not amended the irregular works; whereupon under the 14th section he laid an "information" against me; on the hearing by yourselves of which "information," I am in the award represented to have stated, that the "works therein referred to had not been altered or amended, but stated that his object was to try an experiment, for the purpose of introducing a newly invented mode of ventilation, by means of a vertical perforation in the fire-flues, such flues being of less width than the minimum dimension permitted by the Metropolitan Buildings Act; that is to say, of less than 8½ inches in one direction."

The experiments under my patent for economy of fuel and ventilation have been tried long since, and with the most perfect success. The true cause of the erection of my patent apparatus in my own manufactory is not to be found in the award, but is as follows:—

In my written application to you, dated the 25th ult., to rehear my case for a modification of the Metropolitan Buildings Act, pursuant to the 11th section of that Act, and to enable you to have ocular demonstration of the patent prior to your reporting on my application (as you are compelled to do by the statute) to the Commissioners of Woods, &c., I ventured "to suggest that you should allow me to carry out my own patent, in my own manufactory, under your own inspection."

The award I protest against omits all mention of that important fact, and also of the official answer to my application, dated the 26th of June, which informed me that upon payment of the fees therein stated, "the official referees will inspect the premises on Wednesday next, the 1st of July, at four o'clock in the afternoon."

The award I protest against omits to mention, that, I having paid the fees demanded, you, the three official referees, Messrs. Hosking, Shaw, and Poynter, did, on the 1st of July, inspect my manufactory, did examine the plans for the proposed apparatus under my patent; did suggest that there should be 9 inches of brickwork at the back of the fire; saw and examined the prepared iron-work to be built in with the solid brickwork, for the ventilating process; and after a very careful and attentive examination, authorised me to erect the apparatus at once, and which was accordingly commenced the next morning.

You will bear in mind, also, that at that interview I asked your permission to put in my patent apparatus for economy of fuel and ventilation, in my front offices, but your reply was "not at present."

The award I protest against further omits to mention the official letter from the registrar, in the name of the official referees and himself, of the 9th instant, requesting my attendance at the office of Metropolitan Buildings, on the 15th instant; and I beg your particular attention to why I was required to attend,—on "the introduction in the metropolis of your patent for economy of fuel and ventilation." I attended, but soon discovered that the object for which I was specially requested to attend was to form no part of the proceedings at the interview; the real matter was to prepare the way for instructions to Mr. Foxhall, the district surveyor, to lay an information against me, resulting in the award I now protest against, for the reasons already stated.

I beg to remind you that I have paid, or am liable to pay, since my application under the 11th section of the statute on the 25th of June, four distinct sets of fees under the Metropolitan Buildings Act, the total of which, I have every reason to believe, will exceed the entire cost of the erection of the apparatus and chimney.

What does my patent propose to effect? a saving in the metropolis of one-half of the coals used, or rather wasted, occasioning a money saving to the inhabitants of fifteen hundred thousand pounds a year,—an annihilation of more than one-half of the smoke nuisance in the metropolis; and with these enormous reductions of expense and nuisance, to enable every room even of the poorest inhabitant, to be well ventilated at all times, without violent currents dangerous to the inmates.

I wish to clear myself from doing any thing surreptitiously. I always go straight at my object; and I feel bound honestly to express my opinion, that you, the official referees, were in the right course according to the statute; but from what I have witnessed, I believe you have been diverted from the right into a wrong course by your "legal adviser," particularly as to the "information" (under the circumstances) and the award thereon.

I shall send a copy of this communication to The Builder, with a request that if, as is usual, that Journal publishes the award, the Editor will also publish these observations.—I have the honour to be, gentlemen, your obedient servant, John Leslie.

ROCHESTER CATHEDRAL.

Mr. Editor,—I believe the only way to call attention to an error, and to have it remedied, is by addressing the editor of a public journal, as the subject then becomes known, and commands public interest.

I lately visited the town of Rochester for the purpose of viewing the cathedral, &c., and regret to say, that although much has been expended in its repair, and that not in all cases judiciously, one great feature has been omitted or neglected, but perhaps happily till the present period, when a better taste and knowledge begin to prevail as regards ecclesiastical architecture. I allude to the beautiful Norman doorway at the west end, which is gradually perishing, and in the course of a few years the ornamental work will be so completely obliterated as to render it difficult to restore it to its pristine beauty. The expense of accomplishing this work out of the funds of the cathedral would be so trifling, and at the same time praiseworthy, that it is hoped a hint may be found useful. If the present window was removed, and the original architecture restored (no very difficult task, as you may actually trace the former arches, which have been destroyed to substitute this abortion), additional praise would be due to the heads of the cathedral.—I am, Mr. Editor,

16th July, 1846. A Subscriber.

RIGA AND DUTCH WAINSCOT FOR BUILDING PURPOSES.

That description of oak which is known in England under the denomination of wainscot, and sold as such in the trade (and which appellation is derived from the German words wagen schooss), is a kind of wood originally employed in the construction of the bottoms for waggons; hence the term, wagen-schooss, or waggon-seat.

This wood is cut out of oak trees reared in the forests of Volhynia, where those are selected for felling that have a diameter of from 28 to 30 inches; and for this purpose such trees are selected that are tough in the context, and can furnish logs of from 14 to 15, or at least of 7 feet of clean timber, free from branches, and are then set apart for the better purposes in which oak is employed in building, whilst the shorter ends are cut up into staves.

The trees that are selected supply soft wood, straight in the grain, and easily to be worked. The logs of the lengths just stated are split in the middle, and often freed of the pith, so that supposing a tree to be quite sound, its section will represent about a semi-circle; but if the centre should happen not to be sound, and it should be necessary to cut a plank or so away, the remainder would assume a semi-elliptical form. Of this two slabs are then cut away (as marked AA), and the part represented by B, after having been transported upon sledges from the forest to the port of embarkation, is then shipped at Riga for the ports of England or elsewhere, and is known as crown English wainscot and crown Dutch wainscot, and second quality. This wood is subsequently sawn into planks and boards, and exposed to the action of the atmosphere during three years, at the end of which time it is considered to be adapted for use.

The wood that is used for staves comes from the same trees, and, as already observed, cut out of only shorter and weaker logs; and with this difference, that whilst the boards cut out of the wainscot logs have a width extending from the flat side to the circumference, that of the staves is only equal to the space extending from the broader flat side to a line parallel to it, produced by the previous cutting away of the part of the log represented by the letters ABC, in the annexed diagram; the shorter perpendicular lines indicating the staves, which are of the width of six or seven inches.

Besides the Riga wainscot already mentioned, and which is denominated crown Dutch log, some other is imported from Holland; and this description is rare, and much esteemed.

Holland had carried on a very extensive trade in all kinds of European wood, both in and export, extending their exports even as far as the West Indies. Towards the close of the sixteenth century, Cornelis Corneliszoon, of Rutgeest, invented the saw-mills in Holland. The first of these mills was erected by the inventor at Zoandam, and with two blades, and these mills were very soon introduced into Amsterdam, Rotterdam, Leyden, and Dordtrecht, and rapidly increased in number. Wind was in most cases the motive power employed, and they were constructed upon two known systems. By the first the whole mill is movable upon an axis towards the base, by the second the cap only moves upon an axis placed just below it and upon the top.

The transport of wood into Holland is made on the Rhine, brought in small floats along the Main, Moselle, and the Soar, as far as Andernach, near Bingen, on the Rhine, in which they unite. These small floats are then united into a larger raft, often from 700 to 1,000 feet in length, and from 40 to 90 feet in width, built so as to adapt them to the navigation of that river, and divided into three compartments, the central division being by much the longest of the three, whilst the leading and closing divisions may be considered as the van and rear; and they are propelled by oars similar to galleys. The timber is built up into three compartments, on logs and fir-planks; and the oak timber on the top, pulling along behind the raft a large number of masts, secured to it by chains and ropes. Several temporary dwellings are erected on